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AUTHOR Wright, Bobby
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ABSTRACT

This paper reviews the history of higher education for Native Americans and proposes change strategies. Assimilation was the primary goal of higher education from early colonial times to the 20th century. Tribal response ranged from resistance to support of higher education. When the Federal Government began to dominate Native education in the late 19th century, the emphasis on higher education gave way to vocational training. The New Deal of the 1930s renewed government support for Native higher education. Native enrollment increased dramatically, but, nevertheless, was only one percent of the Native population by 1966. A shift to Native control of education was marked by the development of 24 tribally controlled community colleges. Enrollment growth leveled off during the 1980s, and Native Americans remain among the least educated ethnic groups in the nation. Low enrollment rates and high attrition rates contribute to low college graduation rates and even lower rates of participation in graduate programs. Most Native college students attend public institutions, and over half attend two-year colleges. Less than half attend fulltime. Native participation in higher education is inhibited by persistent barriers to access, retention, and graduation, such as: inadequate academic preparation, insufficient financial support, unsupportive institutional climate, lack of Native role models, and cultural influences on student adjustment. Strategies to improve conditions for Native higher education include federal programs for disadvantaged students, private training and financial aid programs, formation of cultural centers and support groups on campuses, and collaboration with Native communities. This paper contains 38 references. (SV)

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American Indian and Alaska Native Higher Education: Toward a New Century of Academic Achievement and Cultural Integrity

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Bobby Wright
The Pennsylvania State University

The Historical Context

Caleb Cheeshateaumuck, an Algonquian Indian from Martha's Vineyard, graduated from Harvard College, Class of 1665. An outstanding scholar, Cheeshateaumuck could not only read, write and speak English, but Latin and Greek as well — not to mention a facility with his own Native language. Although fully able to meet Harvard's rigorous academic demands, the young Native scholar could not escape the dangers associated with life in an alien environment. He died within months of his college degree, victim of a foreign disease to which he had no immunity.

Cheeshateaumuck was among the first in a long line of Native students who have attended colleges and universities during the past three centuries. He represents, too, the challenge and the triumph, as well as the failure and tragedy, that characterize the history of American Indian and Alaska Native higher education. These conflicting outcomes reflect the clash of cultures, the confrontation of life styles, that has ensued on college campuses since colonial days. Euro-Americans have persistently sought to remold Native peoples in the image of the white man — to "civilize" and assimilate the "savages" — but with equal vigor, Natives have struggled to preserve their cultural integrity. The college campus has historically provided a stage for this cross-cultural drama.

Early Resistance to Higher Education

For as long as colleges have existed in America, Native peoples have had opportunities for higher learning. In fact, they provided the impetus for establishing some of the most enduring and prestigious institutions in the nation: Harvard College (1650), the College of William and Mary (1693), and Dartmouth College (1756) — all of which included an American Indian mission in their original charters. Operating under an educational philosophy that has persisted for centuries, these early colleges aimed to Christianize and "civilize" the Indians. The hope was that educated Natives, as schoolmasters and preachers, would become missionary agents among their own brethren.

The colonial experiments in American Indian higher education proved, for the most part, unsuccessful. Targeted tribal groups resisted missionary efforts and tenaciously clung to their traditional life ways. The general Indian sentiment is illustrated by the Six Nations response to the treaty commissioners from Maryland and Virginia, who in 1744 invited the Indians to send their sons to the College of William and Mary. "We must let you know," the Iroquois leaders responded,

> we love our Children too well to send them so great a Way, and the Indians are not inclined to give their Children learning. We allow it to be good, and we thank you for your Invitation; but our customs differing from yours, you will be so good as to excuse us (Van Doren, 1938, p. 36).

This attitude has characterized the Native response to "civilized" education through the present time.

As the colonial era ended with the birth of the American nation, Native education increasingly became a matter of federal policy. Observing the failure of colonial educational missions, George Washington voiced a shift in policy from an emphasis on higher learning to vocational training for American Indians. "I am fully of the opinion," he concluded,

> that this mode of education which has hitherto been pursued with respect to these young Indians who have been sent to our colleges is not such as can be productive of any good to their nations. It is perhaps productive of evil. Humanity and good policy must make it the wish of every good citizen of the United States that husbandry, and consequently, civilization, should be intro-

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duced among the Indians. (Berry, 1968, p. 88)

Washington advocated a policy that limited the educational experience to vocational training and aimed at the dissolution of traditional Native life. This educational philosophy unfolded in the nineteenth century and dominated until the twentieth, even in the midst of tribal efforts to gain a foothold in higher education.

Early Tribal Support for Higher Education

While many tribes resisted attempts to "civilize" them through education, some Native groups eagerly embraced higher learning. During the 1830s, at the same time that Dartmouth was educating 12 members of the Five Civilized Tribes, the Cherokees and the Choctaws organized a system of higher education which had more than 200 schools, and sent numerous graduates to eastern colleges. The 1830 Treaty of Dancing Rabbit Creek set aside $10,000 for the education of Choctaw youth. The first official use of the funds provided under this treaty occurred in 1841, when the tribe authorized the education of Native boys at Ohio University, Jefferson College, and Indiana University. And the 1843 Report of the Commissioner of Indian Affairs mentioned the education of 20 Choctaw boys, ten at Asbury University and ten at Lafayette College.

The Choctaws selected graduates from tribally-operated boarding schools on the basis of their promise and allowed them to continue their education until they had completed graduate and professional study at colleges in the states. Several members of the Five Civilized Tribes entered Dartmouth in 1838, and in 1854, Joseph Folsom, a Choctaw, received a degree. In all, 12 Choctaw and Cherokee students received support to attend Dartmouth. Ironically, the Choctaw academic system, responsible for a literacy rate exceeding that of their white neighbors, collapsed when the federal government became involved in the late 1800s.

Bacone College, founded by the Baptists in 1880, received tribal support, which came in the form of a land grant from the Creek Tribe. Dedicated to the training of Indian clergy, the College opened to three students; by the end of its fifth year, 56 students had enrolled. Bacone College still operates today with a strong (but not exclusive) commitment to educate American Indians and Alaska Natives (Task Force Five, 1976, p. 268).

Education as Assimilation

Natives who attended universities and colleges during the seventeenth, eighteenth, and nineteenth centuries, for the most part, studied the same subjects as did the white students. However, as the federal government began to dominate Native education in the late nineteenth century, it significantly reduced the role of missionary groups, private individuals and the states. The result was a decline in the emphasis on higher learning. Instead, higher education gave way to vocational training.

In 1870 Congress appropriated $100,000 for the operation of federal industrial schools, and the first off-reservation boarding school was established at Carlisle, Pennsylvania in 1879. The boarding school system dominated the federal approach to Native education for half a century. Its methods included the removal of the students from their homes and tribal influences, strict military discipline, infusion of the Protestant work ethic, as well as an emphasis on the agricultural, industrial and domestic arts — *not* higher academic study.

Most importantly, like the colonial colleges, these institutions intended to remake their Native charges in the image of the white man. Luther Standing Bear, a Sioux, attended Carlisle in 1879. He recalled the cultural assaults he and others encountered during the educational process:

> Our first resentment was in having our hair cut. It has ever been the custom of Lakota men to wear long hair, and old tribal members still wear the hair in this manner. On first hearing the rule, some of the older boys talked of resisting, but realizing the uselessness of doing so, submitted. But for days after being shorn we felt strange and uncomfortable... . The fact is that we were to be transformed. (Standing Bear, 1933, pp. 189-93)

Fueled by a large congressional appropriation in 1882, twenty-five boarding schools opened by the turn of the century — among them, Santa Fe Indian School, which became the Institute of American Indian Arts, a two-year postsecondary school, and Haskell Institute (now Haskell Indian Junior College) in Lawrence, Kansas. These institutes, like the normal schools of the nineteenth century, were not true colleges. Their standards of training, at best, approximated only those of a good manual-training high school. At this time, the range of occupational futures envisioned for Indian students in these institutions was limited to farmer, mechanic and housewife.

By the turn of the century, only a few talented Native youth went on for further training at American colleges and universities. Ohiyesa, a Sioux,

was among them. Adopting the notion that "the Sioux should accept civilization before it was too late," Charles A. Eastman (his English name) graduated from Dartmouth College in 1887 and three years later received a degree in medicine from Boston University. Eastman was keenly aware that his academic success depended on his acceptance of American civilization and the rejection of his own traditional culture. "I renounced finally my bow and arrow for the spade and the pen," he wrote in his memoirs, "I took off my soft moccasins and put on the heavy and clumsy but durable shoes. Every day of my life I put into use every English word that I knew, and for the first time permitted myself to think and act as a white man" (Eastman, 1916, pp. 58, 65).

Ohiyesa's accomplishments were rare in the nineteenth and early twentieth centuries. Native education — although still preserving the centuries-old purpose of civilizing the "savages" — seldom exceeded the high school level. The impact of this neglect on Native educational attainment is reflected in enrollment figures. As late as 1932, only 385 American Indians and Alaska Natives were enrolled in college, and only 52 college graduates could be identified (McNamara, 1984, p. 52). At that time, too, American Indian and Alaska Native scholarships were being offered at only five colleges and universities.

Federal Efforts in the Twentieth Century

Not until the New Deal era of the 1930s, a period of reform in federal Indian policy, did Native higher education receive government support. The Indian Reorganization Act of 1934, among other sweeping reforms, authorized $250,000 in loans for college expenses. By 1935, the Commissioner of Indian Affairs reported 515 Natives in college. Although the loan program was discontinued in 1952, the Bureau of Indian Affairs (BIA) had established the higher education scholarship grant program in 1948, allocating $9,390 among fifty students. American Indian and Alaska Native veterans returning from World War II eligible for GI Bill educational benefits added to the growing number of college students. According to estimates, some 2,000 Native students were enrolled in some form of postsecondary education during the last half of the 1950s. The enrollment grew to about 7,000 by 1965. Sixty-six American Indian and Alaska Natives graduated from four-year institutions in 1961, and by 1968 this figure had almost tripled. Still, in 1966, only one percent of the Native population was enrolled in college (McNamara, 1984, p. 52).

During the 1970s, a series of federal task force and U.S. General Accounting Office reports called attention to the academic, financial, social and cultural problems which American Indian and Alaska Native students encountered in pursuing a college education. These reports fell on attentive Congressional ears. By 1979 the Bureau of Indian Affairs Higher Education Program was financing approximately 14,600 undergraduates and 700 graduate students. Of these, 1,639 received college degrees and 434 earned graduate degrees (McNamara, 1984, p. 70). In addition, federal legislation, including the Indian Self-Determination and Education Assistance Act of 1975 and the Tribally Controlled Community College Assistance Act of 1978, spawned striking new developments in Native higher education.

Perhaps the most dramatic policy change reflected in the new legislation was the shift to Native control of education. For the first time, American Indians and Alaska Natives — who had thus far been subjected to paternalistic and assimilationist policies — began to take control of their own affairs. Higher education was among the targets of the new Self-Determination programs, best illustrated by the development of tribally-controlled community colleges.

Tribal colleges evolved for the most part during the 1970s in response to the unsuccessful experience of Native students on mainstream campuses. Today, there are 24 tribally-controlled colleges in eleven Western and Midwestern states — from California to Michigan, and from Arizona to the Dakotas. These institutions serve about 10,000 American Indians and have a full-time equivalent enrollment of about 4,500 students.

Current Demographics

Until very recently, failed federal policy worked against full Native participation in higher education. Fostered by the Johnson Administration's "War on Poverty," however, American Indians and Alaska Natives joined other underrepresented minority groups who entered colleges and universities in unprecedented numbers. By 1965 their enrollment grew to 7,000, and a decade later the enrollment experienced a ten-fold increase to 76,367 students (McNamara, 1984, pp. 52, 81). The enrollment during the 1980s peaked at 87,700 in 1982 and declined to about 83,000 in 1984 (Fries, 1987, p. 11). Today, some 90,000 Native students attend postsecondary institutions (American Council on Education, 1988).

While the 1970s and early 1980s experienced major enrollment increases, the growth has since leveled off — an alarming development considering

the rapid increase in the Native population and the growth in the college-age cohort during this period (Fries, 1987, p. 1). And despite significant advances, American Indians and Alaska Natives remain among the least educated ethnic groups in the nation. Only 6 percent of the Native population has a college degree, compared to 23 percent of whites, 12 percent of African-Americans, and 7 percent of the Hispanic population (Astin, 1982). Studies reveal that only 55 to 60 percent graduate from high school (Fries, 1987, p. 1; McNamara, 1984, p. 75), and of those who do complete their secondary education, between 21 percent and 40 percent enter college — the lowest rate of any major ethnic group according to the American Council on Education (American Council on Education, 1990; McNamara, 1984; Tierney, in press). A study of 1980 high school graduates, however, revealed a more optimistic finding — that 64 percent of American Indian and Alaska Native graduates had enrolled in some form of higher education by 1986. This compared to 91 percent of Asians, 67 percent of African Americans, and 61 percent of Hispanics (Hodgkinson, 1990, p. 24). College dropout rates, based on several studies, range from 65 percent to 85 percent (Astin, 1982; American Council on Education, 1990; Pottinger, 1990).

Low enrollments and high attrition rates contribute to low college graduation rates, which in turn contribute to even lower rates of representation in graduate programs. American Indian and Alaska Native graduate enrollment fluctuated only slightly between 1976 and 1984, with the largest number (4,377) enrolled in 1980. Their numbers in first-professional degree programs have decreased since 1976, with 1984 enrollments down almost 22 percent from those in 1976 (Fries, 1987, pp. 15-16). Declining and even stable enrollments among a growing and increasingly young population is alarming — further highlighting the pressing need to increase undergraduate degree completions and encouragements to advanced study.

While sketchy data *are* available, the reliability of statistics is a matter of concern. In a landmark national study of minorities in higher education, Astin (1982) revealed that the sample of Native college students "was often so small as to raise serious questions about the reliability of the results" (p. 23). In addition, a recent report on American Indians and Alaska Natives in higher education found that "most sample surveys are either too small to produce reliable estimates for American Indians, or Indians are grouped into an 'other' category" (Fries, 1987, p. 31). Moreover, most states or institutions do not collect sufficient data to report Native student retention and graduation rates. Not only do such circumstances leave the available data questionable, but the issue of educational progress goes unaddressed. Without baseline data, educators and policy makers cannot chart the effectiveness of programs and the progress in achieving educational goals.

College-Going Patterns Among Native College Students

Most American Indian and Alaska Native college students attend public institutions, especially those in states with large Native populations. In most colleges and universities, they are a highly invisible minority, representing only a fragment of the total student enrollment. In 1984, over 35 percent of the nation's 1,190 postsecondary institutions reported no American Indian and Alaska Native students in attendance. Only three institutions enrolled more than 1,000 students — Navajo Community College, Arizona (1,570); Northeastern Oklahoma State University (1,090); and Northland Pioneer College, Arizona (1,016) — where Native students represented 80 percent, 15 percent, and 22 percent of all students, respectively (Fries, 1987, p. 28). Only seven four year institutions have at least 500 Native students in attendance (Tierney, in press).

Other predominantly American Indian institutions have been established, however. In addition to the 24 tribally controlled community colleges, three federally operated institutions have majority Native populations: Haskell Indian Junior College in Lawrence, Kansas; the Institute of American Indian Arts in Santa Fe, New Mexico; and the Southwest Indian Polytechnic Institute (SIPI) at Albuquerque, New Mexico. Haskell, a federally-funded intertribal junior college, has an enrollment of 835, representing 125 American Indian and Alaska Native groups and 32 states (Morgan, 1990). SIPI enrolled 465 students during fiscal year 1989, while the Institute of American Indian Arts had an enrollment of 160 (NACIE, 1990, pp. 106-07).

While about 15 percent of American Indian and Alaska Native college students attend universities, 31 percent were in other four year institutions. Forty percent of Native college students attend rural institutions (Tierney, in press). Over half (54 percent) attend two-year institutions, compared to 37 percent of all college students (See Table 1). The high proportion of community college students is a matter of concern since national statistics reveal that students who attend these institutions have low rates of transfer to four-year institutions (Kidwell, 1990). In addition, researchers commonly at-

tribute the lower retention rates of American Indians and Alaska Natives to their high concentration in community colleges (Mow & Nettles, 1990, p. 41). However, research on Native community college students is virtually non-existent, although growing evidence suggests that tribal community college students successfully transfer to four-year institutions in relatively large numbers (Wright & Weasel Head, 1990).

Other demographic data is noteworthy. The proportion of full-time enrollees declined from 62 percent in 1976 to 48 percent in 1984. Native women on college campuses outnumber their male counterparts by about 20 percent (Tierney, in press).

In general, American Indian and Alaska Native students pursue the same fields of study as their white counterparts (Tierney, in press). During 1987, institutions of higher education awarded 3,196 associate degrees and 3,971 degrees at the bachelor level to American Indians and Alaska Natives. At the associate level, half of the degrees were in Business and Management (25 percent) and Liberal and General Studies (25 percent). Another one-fourth were in Engineering Technologies (10 percent) and Health Professions (13 percent). The largest representation of bachelor's degrees were in Business and Management (20 percent), Education (11 percent), Social Sciences (12 percent), Health Professions (7 percent), and Engineering (five percent).

At the graduate level, postsecondary institutions awarded 1,104 master's degree and 104 doctoral degrees. The dominant fields at the master's level were Business and Management (15 percent), Education (34 percent), Public Affairs (12 percent), and Health Professions (6 percent). American Indians and Alaska Natives received 104 doctoral degrees in 1987, nearly half (or 49 degrees) were in education, while 16 were in psychology. Of the 304 first professional degrees awarded, 66 (22 percent) were awarded in medicine, 31 (ten percent) in veterinary medicine, and 152 (50 percent) in law (Hodgkinson, 1990, pp. 25-26).

Overall, the fields in which American Indian and Alaska Native students receive degrees are pragmatic ones with good employment opportunities. Moreover, they are areas of critical need in Native communities. This trend is a promising sign, although data are not available on the number of college graduates who return to reservations and villages.

Barriers to Access, Retention, and Graduation

What accounts for the disproportionately low participation and graduation rates among the Native population? In 1969, the Senate Subcommittee Report on Indian Education (commonly called the Kennedy Report) attributed the underrepresentation to inadequate academic preparation, teacher and counselor discouragement of college aspirations, financial difficulties, and problems in adjusting emotionally and socially to college (Special Subcommittee on Indian Education, 1969, pp. 84-87). Two decades since the

Table 1

American Indian and Alaska Native Enrollment in Institutions of Higher Education, by Control and Level of Institution: United States, Even Years 1976-84

Control/Level of Institution		1976	1978	1980	1982	1984
PUBLIC	67	75768	46074	24476	95971	642
4-year	28	44527	19729	06230	85729	568
2-year	39	31241	26345	18246	10242	074
PRIVATE	8	16109	14259	16798	9571	1030
4-year	6	7657	8077	8677	1667	913
2-year	1	8451	6181	8121	7913	117

report, the barriers remain much the same. Today, researchers, educators, and students repeatedly report several factors which contribute to the problems: inadequate academic preparation, insufficient financial support, and unsupportive institutional[4] climate. These issues — while not necessarily exhaustive in scope — illustrate the nature of barriers to Native access, retention, and graduation.

Inadequate Academic Preparation

The entry-level academic skills of American Indian and Alaskan Native freshmen, as measured by standard college admissions tests and other indicators, are substantially less than that of their non-Native peers. Writing, math, and science skill levels are especially problematic, and the deficiencies are compounded as Native students approach college-going age. Researchers "found not only that Indian students achieved well below white students but that they fell further behind as the higher grades were reached" (McNamara, 1984, p. 141). On achievement test scores, for example, one study reported that at entry to the ninth grade, their mean scores were one year below the national norms, but by graduation the mean scores indicated that they had fallen two and a half years behind the average high school student (McNamara, 1984). According to the 1988 *Report on BIA Education*, tenth-grade Native students in Bureau of Indian Affairs schools scored at the 7.3 grade level and 19th percentile nationally in standardized mathematics tests (Bureau of Indian Affairs, 1988). American Indians and Alaska Natives in 1985 received an average score of 392 in mathematics on the SAT, compared to a 449 score among whites. Furthermore, they showed the smallest five-year gain relative to other ethnic groups. Data reflected a mere 2 percent gain for American Indians and Alaska Natives, while Asian-Americans experienced a 48 percent gain, Mexican-Americans showed a gain of 26 percent, and Puerto Ricans had an 11 percent increase (Jacobson, 1986, p. 108).

In examining the issue of academic preparation, one must recognize that the problem is not a matter of Native intellectual ability or potential. The National Advisory Council on Indian Education (NACIE), in its most recent report (1989), emphasized that

> American Indians and Alaska Natives have performed on both the ACT and SAT with scores approximating most other minorities but consistently lower than white students. The reasons for this are often associated with social conditions, family situations, and income within the students' environments. The majority of Indians and Alaska Natives come from economically disadvantaged backgrounds and may not be exposed to as many of the everyday experiences other non-Indians take for granted... The strong cultural and traditional influences of the Indian and Alaska Native communities are other factors to consider (p. 61).

Inadequate academic preparation also affects the status of American Indians and Alaska Natives in graduate education. Achievement levels of Native undergraduates, as measured by the Graduate Record Examinations (GRE), lag behind those of white students. In 1987-88, 1,023 Native students took the GRE. Their mean scores on the Verbal, Quantitative and Analytical sections of the test were 471, 472, and 487, respectively, as compared with scores for *all* test takers of 505, 531, and 541.

Insufficient Financial Support

In nearly every study of barriers to Native higher education and in most testimony from Native educators and students, financial problems are a recurring theme. According to an Alaska Native educator from the Central Council Tlingit and Haida Indian Tribes of Alaska, "We need an increase in scholarship grants to our college students.... Many students are defeated by a lack of funds" (Widmark, 1990). Since American Indians and Alaska Natives most often come from communities with the highest poverty levels and highest unemployment rates, comparatively few Native students receive support from their parents or from their own resources. Ultimately they cannot provide the expected or required parental and personal contributions. The financial problem is intensified because Native students tend to be older than traditional age, most have families, and many are single heads of household.

American Indians and Alaska Natives are eligible for federal and state financial aid programs, some of which are specifically designated for Native students. And indeed the vast majority of Native students (82 percent) do apply for financial aid (Tierney, in press). A primary source of financial assistance is the Bureau of Indian Affairs Higher Education Grant Program. The BIA contribution, however, is only about one-fourth of the total assistance required by students, which may be supplemented by such college-based awards as Pell Grants, Supplementary Education Opportunity Grants, Perkins Loans, and College Work Study. Other public sources of support include the Veterans Administration, welfare, state grants, Social Security, tribal awards, vocational

rehabilitation, and state tuition waivers (NACIE, 1989, p. 63).

The BIA program, however, has not kept pace in its funding level with the growing demand among potential Native college students. It is serving an increasing number of students with a decreasing funding level. In 1986, $29.2 million served 14,500 students, while 17,800 awardees shared a fiscal year 1989 allocation of $28.5 million. During that same period, the average award decreased from $1,676 to $1,385 (NACIE, 1990, p. 63). The trend continues into the present. For fiscal year 1991, the BIA proposed a budget of $26.9 million, representing a $1 million decrease (Hobbs, Straus, Dean & Wilder, 1990).

The problem of diminishing funding sources is compounded by rising college costs. As Gordon Dickie, Sr. (1990), Chairman of the Menominee Indian Tribe of Wisconsin, testified,

> changes in federal guidelines have reduced continuing education student budgets and awards. Tuition costs have risen steadily at an average rate of 5% per year for the past 10 years. This has a negative impact on students who already face the other barriers of child care and transportation.

William Baker (1990), Assistant Vice President for Minority Affairs, offered an institutional perspective:

> During the past ten years, the cost of attending my institution — the University of Washington — has increased from about $4,400 to nearly $8,000 for an unmarried student paying resident tuition.... The financial aid programs available to Native American students — all of them combined — have simply lagged far behind the increasing cost of attendance... . Of 110 Native American students receiving financial aid at the University of Washington at the beginning of the 1989-90 academic year, 43 were the recipients of seriously inadequate financial aid packages.

Unsupportive Institutional Climate

Researchers have established that social and academic integration into the life of a postsecondary institution is a major factor in college persistence. In light of the necessary cultural adjustments to an alien institutional environment, integration is especially problematic for American Indians and Alaska Natives. Historical circumstances in Indian-white relations have created conditions in which the distinct cultures of American Indians and Alaska Natives continue to thrive. Surviving values, religious traditions, languages, and other aspects of traditional culture often place Native students at odds with the mainstream culture and with institutions that reflect and support it. To go to college, these culturally different students typically leave small towns or rural reservation communities in which Native life ways are still meaningful. They enter alien, intimidating and overwhelming environments where different, often opposing social and structural systems are hostile, alienating, and isolating. Lin, LaCounte, and Eder (1988) found that "the perception of campus hostility and the feeling of isolation in a predominantly White college contribute significantly ... to the problem of the academic performance of Indian students." Students at the University of Arizona testified that "Native American students face cultural insensitivity and sometimes prejudice by administration service workers, faculty and non-Indian students who are not familiar with or had experience with Native Americans" (Juan, 1990).

The lack of role models and cultural conflicts further illustrate the institutional barriers to retention and academic achievement:

Lack of Role Models

The lack of role models in Native communities and in higher education institutions constitutes a psychological and social barrier to participation and success. Bernard F. Teba, Executive Director of the Eight Northern Indian Pueblos Council (1990), testified that

> the lack of role models in Native American Indian communities and in the classroom and in visible positions of leadership [negatively] influences youth to pursue education and professional careers... . Native American men and women possess an abundance of talent, but ... the lack of parental experience and participation in education, positive role models and other factors have discouraged many of our Native American Indian adults for [sic] persevering in education.

Moreover, in a recent survey of Native educators, a full third cited the lack of role models as one of the top three barriers to educational attainment for young Native men (Falk & Aitken, 1984). Educators agree that role modeling is an important ingredient for American Indian and Alaska Native women students, as well, and that "modeling can be beneficial in recruiting American Indian women students and sustaining their academic achievement at institutions of higher education" (Edwards, Daines & Reed, 1984, p. 31).

In viewing this problem, one must consider that Native people historically have regarded education with suspicion — certainly with good reason based on the adverse effects of past federal policy. Col-

lege-educated Native people often found themselves alienated and mistrusted when they returned home with the trappings of an alien culture. Over the past decade and a half, however, educational attainment has become a priority among Native governments, which increasingly recognize the need for a technically-trained population.

Still, this changing attitude has yet to produce the intended impacts — a highly educated Native population. Given the low percentage of college graduates, most Native students are first-generation college students. They have not derived the educational and financial benefits that accrue to students with college-educated parents, and relatively few Natives come from homes where higher education is an inevitable phase of adulthood. In addition, the lack of community role models has the adverse impact of limiting the goals and expectations of American Indian and Alaska Native students. The absence of parental and community support has historically, then, had a chilling effect on Native aspirations toward higher education. For example, only 17.2 percent of American Indian and Alaska Native eighth graders plan to enroll in a college preparatory program in high school — compared to 22.5 percent of Hispanics, 24.7 percent of African Americans, and 30.9 percent of whites (Hodgkinson, 1990, p. 23).

The trend continues when a Native student comes to a college or university, where the lack of role models is even more noticeable. The number and percentage of Indian faculty and professional staff is almost negligible. On college campuses nationwide, where 90 percent of the faculty are white, American Indian and Alaska Native faculty numbered 1,310, or only 0.3 percent of all faculty in 1983 (Fries, 1987). As Benjamin and Chambers (1989) summarized, "there are also comparatively few success stories and role models to encourage and inspire youth. For those who endeavor to gain a college education, only a handful will ever have the opportunity to learn from a Native American professor" (p. 3).

Cultural Conflicts

Perhaps more than any other factor related to institutional climate, cultural conflict can affect American Indian and Alaska Native participation and academic success in higher education. Mow and Nettles (1990) reported that "several studies show that they [Native college students] encounter difficulties in making cultural adjustments to predominantly white institutions. What these cultural difficulties are, however, and how they relate to college success or failure are unclear" (p. 11). Testimony from Native students at the University of Arizona is helpful in understanding this issue:

> For Native American students to obtain a higher education, we are faced with going to postsecondary institutions away from our tribal Nations, communities and families. As a result, most students experience cultural conflicts and insensitivity in outside foreign postsecondary educational systems. (Juan, 1990)

Scott (1986), in his model for predicting academic success among Native college students, identified cultural attachment as the most important variable. He found that greater measured ability, higher socio-economic background, and a higher percentage of "non-Indian" blood — indications that significant integration has taken place prior to arrival at college — are expected to reduce attachment to Indian culture, facilitate subsequent integration into the university community, and thereby increase the likelihood of completing college. Scott and other researchers (Benjamin & Chambers, 1989) concluded that Native students who maintain strong cultural ties risk full integration into the university community and reduce the chances of academic success, as defined by the institution. The net result of this cultural confrontation is that, to fully integrate socially and academically, an American Indian and Alaska Native may be expected to reduce her or his attachment to traditional culture.

The foregoing discussion, however, does not imply that cultural persistence is a mark of failure. Pottinger (1990) cited that "minorities perceive the cultural differences they encounter in school as markers of identity to be maintained, not as barriers to be overcome". Many American Indians and Alaska Natives, as a result, opt out of college (Huffman, Sill & Brokenleg, 1986). Moreover, if success is measured by one's willingness to forsake his or her cultural identity, as Scott (1986) concluded, then "many Indians would not consider dropping out of school a mark of failure" (p. 393). Institutions of higher education must address this dilemma.

Current Strategies to Increase Access, Retention and Graduation

What can be done to overcome barriers, so that American Indians and Alaska Natives — on a level equal to their white peers — participate, persist, and perform in higher education? Many current state, private, institutional, and tribal strategies offer promising developments in addressing the problems and needs outlined above:

Academic Preparation

Educators recognize that participation and success in higher education are largely determined early in one's educational career — as early as the elementary school years. Accordingly, the U.S. Department of Education has initiated a number of support service programs designed to assist in improving access and retention for disadvantaged students. Among the most successful are the TRIO Programs. These six programs include Talent Search, Upward Bound, Equal Opportunity Centers, Student Support Services, McNair Postbaccalaureate Achievement, and Staff Training. They assist low-income, first generation college students in completing high school, in obtaining college information, in processing admissions and financial aid applications, and, once enrolled in postsecondary institutions, in pursuing further education. For the 1981-82 year, the most recent year for which data is available, 4.2 percent of the Talent Search and 5.4 percent of the Upward Bound participants were American Indians and Alaska Natives (Haynes, 1990).

The Department has also initiated school-college partnership programs to increase expectations and preparedness for attending college. For example, the School, College, and University Partnerships (SCUP) Program encourages partnerships between institutions of higher education and secondary schools serving low-income students. This federal program supports projects that improve the academic skills of secondary school students, increase their opportunity to continue programs of education after secondary school, and improve their prospects for employment after high school. In the program's first competition for funds in fiscal year 1988, three of the nine successful applicants proposed to serve American Indians. One of these is administered at Northern Arizona University. These projects serve 1,000 students from 11 tribes in Arizona, Minnesota and Utah (Haynes, 1990).

Private organizations have also played a role in encouraging Native youth to pursue and succeed in college. The American Indian Science and Engineering Society (AISES, 1989), for example, sponsors summer math and science enrichment programs on campuses across the nation. In 1989, 220 Indian students participated in these camps. In addition, the John D. and Catherine T. MacArthur Foundation awarded AISES a three-year grant of $480,000 to launch a comprehensive math, science and engineering enrichment program for American Indian and Alaska Native junior high and high school students. The project will entail a four-year progression of culturally-sensitive summer camps at university sites around the country, followed by academic-year enrichment activities and a fifth year internship.

Several postsecondary institutions have advanced initiatives, with federal, private, or institutional funds, to provide early intervention programs aimed at pre-college age students. In 1991, for example, Montana State University will offer three distinct summer camps for junior high and high school students. The breadth of programs makes it possible for students in grades seven through twelve to be eligible to participate in one of these camps, and in future years, to progress into those camps designed for higher grades.

Financial Support

Federal financial aid, especially that awarded by the Bureau of Indian Affairs, has not kept pace with the need. However, some states and private organizations have responded with scholarship and grant assistance for American Indians and Alaska Natives. In the states of Montana and South Dakota, for example, Native students in financial need receive tuition waivers at all public institutions. Minnesota has a long-standing scholarship program, which offers an average award of $1,400 to as many as 1,500 undergraduate, graduate, and vocational education students. State appropriations for the Minnesota Indian Scholarship Program has grown from $5,000 to $1.6 million since 1955 (Aitken, 1990).

Private non-profit organizations have also made efforts to increase opportunities for American Indians and Alaska Natives. Among the most noteworthy is the American Indian Science and Engineering Society, an organization committed "to significantly increase the number of American Indian scientists and engineers; at the greatest possible speed; ensuring professional growth; and developing leaders for nation building (AISES, 1989, p. 1)." While only part of its agenda is the raising and awarding of scholarships, this activity is among one of its most successful activities. The AISES Scholarship Program, started in 1982 with a modest $1,400, has grown in 1989 to $190,000 in scholarships for 151 American Indian students.

The American Indian Higher Education Consortium, an association of tribal colleges, has started the American Indian College Fund. Patterned after the United Negro College Fund, the organization will serve as a clearinghouse for scholarship contributions and awards. During its first year, the fund raised $1,000,000.

Several organizations provide fellowships specifically for graduate study. The American In-

dian Graduate Center (formerly American Indian Scholarships, Inc.) administers fellowships from private contributions, and, through contract with the Bureau of Indian Affairs, distributes the federal support of American Indian graduate study.

Private foundations have also answered the call for increased access through financial assistance. The Ford Foundation established the Predoctoral and Dissertation Fellowship Programs for minorities, which are designed in part to assist American Indian and Alaska Native graduate students.

Not the least important of these non-federal initiatives are those scholarship and fellowship programs established by individual institutions of higher education. Several colleges and universities offer special financial assistance to American Indians and Alaska Natives, as do several individual Native governments.

It is critical to note that these state, private, and institutional efforts do not and must not supplant diminishing federal assistance. Rather, these laudable programs supplement federal programs in an effort to achieve access and equity in higher education. Still they remain a small contribution in comparison to the need.

Institutional Climate

If American Indian and Alaska Native students encounter a receptive, supportive institutional environment, they are more likely to make the necessary social and academic adjustment. Falk and Aitkin (1984) suggested several factors that contribute to a supportive environment for Native students: a large number or critical mass of Native students on campus; peer support; parental support; support from outside agencies, such as tribal education departments; faculty and staff who show concern for Native students; good academic preparation in high school, personal motivation; and adequate financial support.

In addition, Scott (1986) included positive institutional structures such as cultural centers and curricula which value the Native world as important factors in institutional climate. American Indian and Alaska Native studies programs on college campuses provide these structures and serve as focal points for Native students. In 1984, there were 107 two- and four-year institutions with programs of varying size and scope of operation. Half of these enjoyed full departmental status (Heth and Guyette, 1984). In addition to the teaching, research, and service functions of traditional academic departments, Native studies programs also provide important student services. Perhaps most important, they provide a haven in an otherwise alienating environment — in the words of an Alaska Native educator, "a safe place to be in a strange land" (Widmark, 1990).

Some colleges and universities serving Native students are making efforts to create a supportive institutional climate for American Indian and Alaska Native students. Several model institutions are noteworthy:

Montana State University

Montana State University, a public land-grant institution, has perhaps the most comprehensive support system for its Native students in the nation. The heart of this system is the Center for Native American Studies, an academic department in the College of Letters and Science, with six full-time faculty. These include three teaching faculty, one full-time Native student advisor, and two administrative faculty serving special branches of the Center: the Office of Tribal Service and the Native American Graduate Center. The Office of Tribal Service, the only one of its kind in the nation, coordinates the University's interactions with the tribes of Montana, particularly with the seven tribally controlled colleges in the state. The Native American Graduate Center seeks financial support and administers fellowship programs for advanced study.

In addition, the Center for Native American Studies maintains the American Indian Club Room, a spacious, well-furnished complex which offers an enclave in an otherwise alienating environment. The advisor's office, student computers and typewriters, meeting/lounging/study facilities, and telephones are available here. A Native student in need is eligible for the Center's emergency loans, special scholarships, free tutoring, and other support services.

Other institutional programs complement the Center's activities. The Advance By Choice Program, a federally-funded special services program, provides counseling, tutoring, and developmental coursework for American Indian and Alaska Native and other disadvantaged students. In addition, the American Indian Research Opportunities Program is the University's umbrella organization for three federally-funded projects designed to train undergraduate and graduate students for the health professions and biomedical research careers.

Other programs have included financial support of graduate students, the establishment of faculty development programs for tribal college instructors, faculty and student exchange programs, donations of library books and science equipment, assistance with tribal college ac-

creditation, and the administration of math/science programs for minority high school students.

Perhaps the most vital component of the support network is the institutional commitment that pervades Montana State University. According to the President, William Tietz, "We have, based on our land grant mission, oriented ourselves to assisting the state's American Indian population." Despite a decade of dwindling state resources for higher education, Native education programs have enjoyed continued funding at Montana State University (Trinity, 1990).

Largely because of the supportive climate, in a period of general University enrollment stability, the American Indian and Alaska Native student numbers have continued to increase. The Native student enrollment for fall 1990 was 224, representing an 11 percent increase over the same term last year and a growth of 43 percent since fall 1981.

Northern Arizona University

Two years ago, Northern Arizona University (NAU), a public state institution, embarked on "The New Momentum," a new initiative to undertake a systematic, culturally sensitive, long-term partnership program with various Native governments, to improve their educational and economic opportunities. It proposed to forge partnerships among the University, the tribal governments, individuals, state and federal agencies, school systems, and organizations in the private sector.

Further, to create a more receptive, supportive environment, NAU has established a number of programs and services: The Nizhoni Summer Camp, the Native American Advisement Center, the Talent Search Program, and the Upward Bound Program. In addition, the University operates unique centers which focus curricula and training on needs of the Native communities — the American Indian Rehabilitation Research and Training Center, offered through its Institute for Human Development, and the Center for American Indian Economic Development, supported through the College of Business Administration. As a result of such efforts over the past decade, NAU has more than doubled its Native student enrollment, one of the largest in the nation.

Again, it bears repeating that strong institutional commitment is at the root of NAU's success. As President Eugene M. Hughes recently emphasized, "We at Northern Arizona University are committed to a statewide and region-wide mission of improving the educational and economic opportunities for American Indians" (Hughes, 1990).

Clarkson University/AISES

A decade ago, Clarkson University, a private institution in Potsdam, New York, became the site of the first American Indian Science and Engineering Society student chapter. (Today there are some sixty AISES chapters nationwide.) Considered a model chapter, the Clarkson AISES chapter offers a number of nurturing activities, including the AISES Science Camp and a Mentorship Program for junior high and high school students. The presence of AISES on the Clarkson campus is largely accountable for the highest percentage rate of matriculated Native students, and the highest retention rate in the country (Rydzewski, 1990). According to the Assistant Dean and AISES advisor, to date, 95 percent of Native students who enter Clarkson graduate from the College of Engineering. From a total enrollment of 15 to 20 students annually, as many as seven engineering students have graduated in a single year.

Clarkson's commitment and success have attracted corporate contributions for engineering scholarships and grants. Moreover, the institution is committed to matching all external support, allowing the University to disperse between $75,000 and $100,000 in financial aid awards to American Indian and Alaska Native students.

Assistant Dean Edward Misiaszek attributes this success to selective recruitment of students, often depending on direct referrals from high school counselors and other colleagues, as well as close follow-up and mentoring of enrolled students. In Misiaszek's words, "I ride herd on these students." He has been doing so for twenty years (Misiaszek, personal communication, January 11, 1991).

This unparalleled success speaks well of Clarkson University and the strong administrative commitment in its College of Engineering. But equally noteworthy as a success factor is the national AISES organization itself. Formed in 1977, the Society has dedicated itself to increase opportunities for American Indians and Alaska Natives to pursue science and engineering fields. Unquestionably the individual chapters and the national organization have provided an effective support network with positive results in recruitment, retention, and graduation of Native students in these important fields.

Exemplary institutions which are successful in enrolling and retaining Native college students have common characteristics. Foremost among these is a strong, ongoing institutional commitment, sometimes resting in a single influential administrator. Other factors include collaboration

with Native communities, an emphasis on precollege programs, proactive approaches to financial aid needs, and strong student support systems. Certainly, the highlighted institutions are not the only (or necessarily the best) examples of exemplary programs. At the same time, one must recognize that most institutions are either misguided in their approach — viewing the student as the problem rather than the institution and its culture — or they completely ignore the issues (Tierney, in press).

Clearly, positive developments loom on the horizon. They promise educational advancement among American Indians. Ultimately, however, the test will be the definition of success that emerges as Indians increasingly enter and achieve in postsecondary institutions. Will success contribute to the assimilation of Native people, or will institutions accommodate and value the cultural differences which enrich the diversity of higher education and American society as a whole? This remains the critical question.

Strategies for the 1990s and Beyond

The two decades since the Kennedy Report have witnessed significant advances in American Indian and Alaska Native higher education. The sad irony is that the same problems and many of the same recommendations are as relevant today as they were in 1969. Clearly, much remains to be done if the nation is to significantly increase the postsecondary recruitment, retention and graduation of the Native population. Toward a new era in American Indian and Alaska Native higher education, the following recommendations are offered:

- The United States Congress should increase appropriations for federal financial assistance for postsecondary education, especially for the Bureau of Indian Affairs Scholarship Grant Program, to a level that allows every eligible American Indian and Alaska Native person to attend a higher education institution of his/her choice.
- The Bureau of Indian Affairs Higher Education Grant Program (or its contractors) and individual institutions of higher education should collaborate to provide opportunities, especially financial assistance, so that college-bound Native students may attend out-of-state, private, highly selective and/or costly institutions. Currently, students who receive BIA funding are typically limited to support of in-state tuition. Partial tuition waivers, scholarships, and relocation assistance programs represent possible institutional responses. However, the BIA or its contractors should take the initiative to establish bilateral agreements to encourage this option for college-bound Native students.
- Federal financial aid programs and higher education institutions should implement measures to extend the term of financial aid eligibility for students who require additional time to complete their degrees. This category of student would include community college transfer students, whose academic progress is typically delayed in developmental coursework. Other needy students include those pursuing science, engineering and other technical fields which today are considered at least five-year programs. Workable measures include a special provision in the Pell grant guidelines and a new program funded specifically for this category of needy students.
- The U.S. Department of Education, individual states, and institutions of higher education should collect, analyze, and disseminate data on American Indians and Alaska Natives in higher education. A primary goal of the data collection should be to track the progress of Native educational attainment, especially enrollment, retention and graduation. A federal mandate to states which receive Native education funds and to the National Center for Education Statistics is one strategy to meet this need.
- In addressing needs of American Indian and Alaska Native higher education, the federal government, states, and institutions of higher education should be sensitive to the unique needs of urban Native populations and communities which are not federally recognized. Opportunities offered to reservation-based and federally recognized groups should be available to urban and non-recognized Native populations. At the same time, to qualify for all federal or institution-based programs, applicants should be required to provide adequate documentation of one's Native ancestry. Simple self-identification often misplaces opportunities in the hands of individuals whose degree of Native blood is minimal and whose affiliation with American Indian and Alaska Native communities is negligible.

- The federal government, states, tribal governments, and higher education institutions should collaborate to improve the precollegiate preparation of Native students. The focus of these efforts should not be limited to academic preparation, but also extend to social and emotional readiness as well. Programs like the recently initiated SCUP Program and the proven TRIO Programs should be expanded and should serve Native populations in proportion to their need.
- Junior high and high schools should improve and expand guidance services, especially those which impact students' career and college plans. Such services might include ongoing career education, early college visitations, dissemination of summer program and college information, and alcohol/drug counseling. In general, schools should provide more ongoing encouragement and support to potentially college-bound students, beginning such efforts no later than the junior high school level.
- American Indian and Alaska Native parents and their communities at large should increase involvement in their children's educational achievement and planning. While community control and parental involvement in education are hallmarks of the Self-Determination era, parents can do more to encourage and support their children's educational aspirations. Schools, tribal education organizations, and higher education institutions can assist parents in this goal. Such low-cost activities as financial aid workshops, student-parent college visitations, and career information dissemination, and community career/college fairs are possible strategies. The Parent Action Team at Montana's Rocky Boy Reservation offers a model program.
- Higher education institutions, particularly those with significant Native student populations, should provide adequate financial support and other resources to maintain a quality American Indian and Alaska Native studies center. These academic, student services, and cultural centers should serve as the focal point for Native students, but should not be viewed as isolating, separatist programs. At the same time, these Centers must serve the diversity goals of the institution and provide academic, social, and cultural enrichment to the campus community.
- Higher education institutions should strengthen their affirmative action efforts. In light of the limited availability of qualified Native doctorates and the severe underrepresentation of American Indians and Alaska Natives on college faculties, institutions should develop special faculty development programs to recruit, nurture, and tenure Native faculty. Such programs might encompass research support funds, release time provisions, early sabbatical leaves, mentorships with senior faculty, and financial support for Native faculty pursuing their doctorates.
- The federal government, states, Native governments, and higher education institutions should collaborate to support and strengthen the tribally controlled colleges. In recognition of their proven success, the federal government (with contributions from state appropriations) should provide adequate funding for operations and development, including endowments and facilities construction.

Conclusion: Toward a New Era of Academic Progress and Cultural Integrity

Many of the same challenges that confronted Caleb Cheeshateaumuck at seventeenth-century Harvard face Native college students today. Nearly four hundred years later, the methods used to "civilize" (or, in more contemporary terms, to "assimilate" and "acculturate") Indian youth, as well as the tragic outcomes which resulted, remain much the same. A contemporary researcher, in his recent study of American Indian college students, found that

> Indians do poorly in school because the educational system has been one of the major battlegrounds in the confrontation between Indian and white worlds... As the substance, networks, and activities of education in white schools typically champion white values and practices to the exclusion of Indian ones, fitting in and succeeding in school create special problems for Indian students committed to Indian culture (Scott, 1986, pp. 383-84).

Indian students have been counseled to become 'less Indian,' he added,

> as a conscious strategy for doing better in school. If this is what is meant by success,

> many Indians would not consider dropping out of school a mark of failure. For many, success in education means mastering white ways on one's own terms by maintaining some commitment to Indian values and tradition (Scott, 1986, p. 393).

Considering the cultural conflicts, it is not surprising, then, that Indians continue an aversion to higher education, an institution which for centuries has sought to remold them in the image of the white man. In terms of relative success of educational efforts, their cultural persistence remains a centuries-old tribute to peoples who continue to prevail on the battleground of ideologies and cultures, even if they have not always triumphed in the academic arenas.

Now, more than three centuries after Caleb Cheeshateaumuck confronted the alien environment of Harvard, the time is long overdue for cultural conflict and assimilationist efforts to end. American Indians and Alaska Natives must have opportunities to enter the higher education arena on their own terms — to encounter challenge without tragedy and experience triumph without sacrificing their cultural integrity.

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About the Author

Bobby Wright is a Research Associate and Assistant Professor in the Center for the Study of Higher Education, The Pennsylvania State University. At Penn State, he pursues an active research agenda in Native higher education, with particular emphases in historical study of colonial college missions and student outcomes research at tribally controlled community colleges. Dr. Wright is a member of the Chippewa-Cree tribe of Rocky Boy's Reservation in Montana. He is the past director of the Rocky Boy Tribal High School and more recently former director of the Center for Native American Studies, Montana State University. His total experience in Native education spans nearly two decades. Dr. Wright is a strong advocate of self-determination in education and for tribally controlled education, and his professional life has been devoted to fostering these developments.